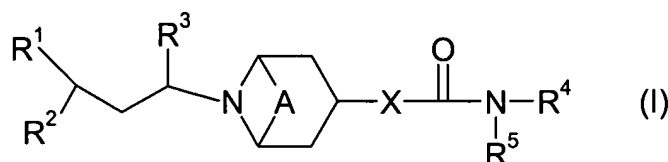


Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A compound of formula (I):



wherein

A is absent or is (CH<sub>2</sub>)<sub>2</sub>;

R<sup>1</sup> is C<sub>1-8</sub> alkyl, C(O)NR<sup>10</sup>R<sup>11</sup>, C(O)<sub>2</sub>R<sup>12</sup>, NR<sup>13</sup>C(O)R<sup>14</sup>, NR<sup>15</sup>C(O)NR<sup>16</sup>R<sup>17</sup>, NR<sup>18</sup>C(O)<sub>2</sub>R<sup>19</sup>, heterocyclyl, aryl or heteroaryl;

R<sup>10</sup>, R<sup>13</sup>, R<sup>15</sup>, R<sup>16</sup> and R<sup>18</sup> are hydrogen or C<sub>1-6</sub> alkyl;

R<sup>11</sup>, R<sup>12</sup>, R<sup>14</sup>, R<sup>17</sup> and R<sup>19</sup> are C<sub>1-8</sub> alkyl (optionally substituted by halo, hydroxy, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> haloalkoxy, C<sub>3-6</sub> cycloalkyl (optionally substituted by halo), C<sub>5-6</sub> cycloalkenyl, S(C<sub>1-4</sub> alkyl), S(O)(C<sub>1-4</sub> alkyl), S(O)<sub>2</sub>(C<sub>1-4</sub> alkyl), heteroaryl, aryl, heteroaryloxy or aryloxy), aryl, heteroaryl, C<sub>3-7</sub> cycloalkyl (optionally substituted by halo or C<sub>1-4</sub> alkyl), C<sub>4-7</sub> cycloalkyl fused to a phenyl ring, C<sub>5-7</sub> cycloalkenyl, or, heterocyclyl (itself optionally substituted by oxo, C(O)(C<sub>1-6</sub> alkyl), S(O)<sub>k</sub>(C<sub>1-6</sub> alkyl), halo or C<sub>1-4</sub> alkyl); or R<sup>11</sup>, R<sup>12</sup>, R<sup>14</sup> and R<sup>17</sup> can also be hydrogen;

or R<sup>10</sup> and R<sup>11</sup>, and/or R<sup>16</sup> and R<sup>17</sup> may join to form a 4-, 5- or 6-membered ring which optionally includes a nitrogen, oxygen or sulphur atom, said ring being optionally substituted by C<sub>1-6</sub> alkyl, S(O)<sub>l</sub>(C<sub>1-6</sub> alkyl) or C(O)(C<sub>1-6</sub> alkyl);

R<sup>2</sup> is C<sub>1-6</sub> alkyl, phenyl, heteroaryl or C<sub>3-7</sub> cycloalkyl;

R<sup>3</sup> is H or C<sub>1-4</sub> alkyl;

R<sup>4</sup> is aryl or heteroaryl;

R<sup>5</sup> is H or alkyl;

X is CH<sub>2</sub>, (CH<sub>2</sub>)<sub>2</sub>, CH=CH, OCH<sub>2</sub> or S(O)<sub>n</sub>CH<sub>2</sub>;

n is 0, 1 or 2;

unless specified otherwise aryl, phenyl and heteroaryl moieties are independently optionally substituted by one or more of halo, cyano, nitro, hydroxy,  $\text{OC(O)NR}^{20}\text{R}^{21}$ ,  $\text{NR}^{22}\text{R}^{23}$ ,  $\text{NR}^{24}\text{C(O)R}^{25}$ ,  $\text{NR}^{26}\text{C(O)NR}^{27}\text{R}^{28}$ ,  $\text{S(O)}_2\text{NR}^{29}\text{R}^{30}$ ,  $\text{NR}^{31}\text{S(O)}_2\text{R}^{32}$ ,  $\text{C(O)NR}^{33}\text{R}^{34}$ ,  $\text{CO}_2\text{R}^{36}$ ,  $\text{NR}^{37}\text{CO}_2\text{R}^{38}$ ,  $\text{S(O)}_q\text{R}^{39}$ ,  $\text{C}_{1-6}$  alkyl,  $\text{C}_{2-6}$  alkenyl,  $\text{C}_{2-6}$  alkynyl,  $\text{C}_{3-10}$  cycloalkyl,  $\text{C}_{1-6}$  haloalkyl,  $\text{C}_{1-6}$  alkoxy( $\text{C}_{1-6}$ )alkyl,  $\text{C}_{1-6}$  alkoxy,  $\text{C}_{1-6}$  haloalkoxy, phenyl, phenyl( $\text{C}_{1-4}$ )alkyl, phenoxy, phenylthio, phenylS(O), phenylS(O)<sub>2</sub>, phenyl( $\text{C}_{1-4}$ )alkoxy, heteroaryl, heteroaryl( $\text{C}_{1-4}$ )alkyl, heteroaryloxy or heteroaryl( $\text{C}_{1-4}$ )alkoxy; wherein any of the immediately foregoing phenyl and heteroaryl moieties are optionally substituted with halo, hydroxy, nitro, S( $\text{C}_{1-4}$  alkyl), S(O)( $\text{C}_{1-4}$  alkyl), S(O)<sub>2</sub>( $\text{C}_{1-4}$  alkyl), S(O)<sub>2</sub>NH<sub>2</sub>, S(O)<sub>2</sub>NH( $\text{C}_{1-4}$  alkyl), S(O)<sub>2</sub>N( $\text{C}_{1-4}$  alkyl)<sub>2</sub>, cyano,  $\text{C}_{1-4}$  alkyl,  $\text{C}_{1-4}$  alkoxy, C(O)NH<sub>2</sub>, C(O)NH( $\text{C}_{1-4}$  alkyl), C(O)N( $\text{C}_{1-4}$  alkyl)<sub>2</sub>, CO<sub>2</sub>H, CO<sub>2</sub>( $\text{C}_{1-4}$  alkyl), NHC(O)( $\text{C}_{1-4}$  alkyl), NHS(O)<sub>2</sub>( $\text{C}_{1-4}$  alkyl), CF<sub>3</sub> or OCF<sub>3</sub>;

unless otherwise stated heterocyclyl is optionally substituted by  $\text{C}_{1-6}$  alkyl [optionally substituted by phenyl {which itself optionally substituted by halo,  $\text{C}_{1-4}$  alkyl,  $\text{C}_{1-4}$  alkoxy, cyano, nitro, CF<sub>3</sub>, OCF<sub>3</sub>, ( $\text{C}_{1-4}$  alkyl)C(O)NH, S(O)<sub>2</sub>NH<sub>2</sub>,  $\text{C}_{1-4}$  alkylthio, S(O)( $\text{C}_{1-4}$  alkyl) or S(O)<sub>2</sub>( $\text{C}_{1-4}$  alkyl)} or heteroaryl {which itself optionally substituted by halo,  $\text{C}_{1-4}$  alkyl,  $\text{C}_{1-4}$  alkoxy, cyano, nitro, CF<sub>3</sub>, ( $\text{C}_{1-4}$  alkyl)C(O)NH, S(O)<sub>2</sub>NH<sub>2</sub>,  $\text{C}_{1-4}$  alkylthio, S(O)( $\text{C}_{1-4}$  alkyl) or S(O)<sub>2</sub>( $\text{C}_{1-4}$  alkyl)}], phenyl {optionally substituted by halo,  $\text{C}_{1-4}$  alkyl,  $\text{C}_{1-4}$  alkoxy, cyano, nitro, CF<sub>3</sub>, OCF<sub>3</sub>, ( $\text{C}_{1-4}$  alkyl)C(O)NH, S(O)<sub>2</sub>NH<sub>2</sub>,  $\text{C}_{1-4}$  alkylthio, S(O)( $\text{C}_{1-4}$  alkyl) or S(O)<sub>2</sub>( $\text{C}_{1-4}$  alkyl)}, heteroaryl {optionally substituted by halo,  $\text{C}_{1-4}$  alkyl,  $\text{C}_{1-4}$  alkoxy, cyano, nitro, CF<sub>3</sub>, ( $\text{C}_{1-4}$  alkyl)C(O)NH, S(O)<sub>2</sub>NH<sub>2</sub>,  $\text{C}_{1-4}$  alkylthio, S(O)( $\text{C}_{1-4}$  alkyl) or S(O)<sub>2</sub>( $\text{C}_{1-4}$  alkyl)}, S(O)<sub>2</sub>NR<sup>40</sup>R<sup>41</sup>, C(O)R<sup>42</sup>, C(O)<sub>2</sub>( $\text{C}_{1-6}$  alkyl) (~~such as tert-butoxycarbonyl~~), C(O)<sub>2</sub>(phenyl( $\text{C}_{1-2}$  alkyl)) (~~such as benzyloxycarbonyl~~), C(O)NHR<sup>43</sup>, S(O)<sub>2</sub>R<sup>44</sup>, NHS(O)<sub>2</sub>NHR<sup>45</sup>, NHC(O)R<sup>46</sup>, NHC(O)NHR<sup>47</sup> or NHS(O)<sub>2</sub>R<sup>48</sup>, provided none of these last four substituents is linked to a ring nitrogen;

k, l, [[p]] and q are, independently, 0, 1 or 2;

R<sup>20</sup>, R<sup>22</sup>, R<sup>24</sup>, R<sup>26</sup>, R<sup>27</sup>, R<sup>29</sup>, R<sup>31</sup>, R<sup>33</sup>, R<sup>37</sup> and R<sup>40</sup> are, independently, hydrogen or  $\text{C}_{1-6}$  alkyl;

R<sup>21</sup>, R<sup>23</sup>, R<sup>25</sup>, R<sup>28</sup>, R<sup>30</sup>, R<sup>32</sup>, R<sup>34</sup>, R<sup>36</sup>, R<sup>38</sup>, R<sup>39</sup>, R<sup>41</sup>, R<sup>42</sup>, R<sup>43</sup>, R<sup>44</sup>, R<sup>45</sup>, R<sup>46</sup>, R<sup>47</sup> and R<sup>48</sup> are, independently,  $\text{C}_{1-6}$  alkyl (optionally substituted by halo, hydroxy,  $\text{C}_{1-6}$  alkoxy,  $\text{C}_{1-6}$  haloalkoxy,

C<sub>3-6</sub> cycloalkyl, C<sub>5-6</sub> cycloalkenyl, S(C<sub>1-4</sub> alkyl), S(O)(C<sub>1-4</sub> alkyl), S(O)<sub>2</sub>(C<sub>1-4</sub> alkyl), heteroaryl, phenyl, heteroaryloxy or phenyloxy), C<sub>3-7</sub> cycloalkyl, phenyl or heteroaryl; wherein any of the immediately foregoing phenyl and heteroaryl moieties are optionally substituted with halo, hydroxy, nitro, S(C<sub>1-4</sub> alkyl), S(O)(C<sub>1-4</sub> alkyl), S(O)<sub>2</sub>(C<sub>1-4</sub> alkyl), S(O)<sub>2</sub>NH<sub>2</sub>, S(O)<sub>2</sub>NH(C<sub>1-4</sub> alkyl), S(O)<sub>2</sub>N(C<sub>1-4</sub> alkyl)<sub>2</sub>, cyano, C<sub>1-4</sub> alkyl, C<sub>1-4</sub> alkoxy, C(O)NH<sub>2</sub>, C(O)NH(C<sub>1-4</sub> alkyl), C(O)N(C<sub>1-4</sub> alkyl)<sub>2</sub>, CO<sub>2</sub>H, CO<sub>2</sub>(C<sub>1-4</sub> alkyl), NHC(O)(C<sub>1-4</sub> alkyl), NHS(O)<sub>2</sub>(C<sub>1-4</sub> alkyl), C(O)(C<sub>1-4</sub> alkyl), CF<sub>3</sub> or OCF<sub>3</sub>; and

R<sup>21</sup>, R<sup>23</sup>, R<sup>25</sup>, R<sup>28</sup>, R<sup>30</sup>, R<sup>34</sup>, [[R<sup>35</sup>,]] R<sup>36</sup>, R<sup>41</sup>, R<sup>42</sup>, R<sup>43</sup>, R<sup>44</sup>, R<sup>45</sup>, R<sup>46</sup> and R<sup>47</sup> may additionally be hydrogen;

or a pharmaceutically acceptable salt thereof or a solvate thereof.

2. (Original) A compound as claimed in claim 1 wherein A is absent.

3. (Currently Amended) A compound as claimed in claim 1, [[or 2]] wherein R<sup>1</sup> is piperidinyl or piperazinyl substituted by S(O)<sub>2</sub>C<sub>1-4</sub> alkyl, S(O)<sub>2</sub>C<sub>1-4</sub> haloalkyl or C(O)NH-phenyl.

4. (Currently Amended) A compound as claimed in claim 1, [[or 2]] wherein R<sup>1</sup> is phenyl substituted by S(O)<sub>2</sub>C<sub>1-4</sub> alkyl.

5. (Currently Amended) A compound as claimed in claim 1, [[2 or 3]] wherein R<sup>2</sup> is phenyl optionally substituted by 0, 1 or 2 fluorines.

6. (Currently Amended) A compound as claimed in claim 1, ~~2, 3, 4 or 5~~ wherein R<sup>3</sup> is hydrogen.

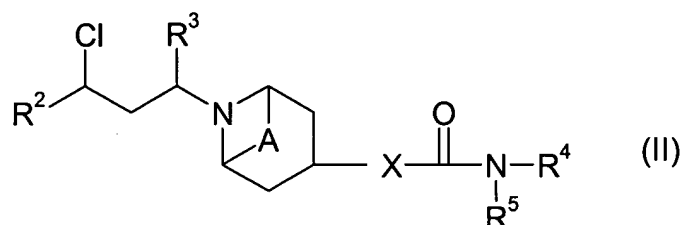
7. (Currently Amended) A compound as claimed in ~~any one of the preceding claims~~ claim 1, wherein R<sup>4</sup> is phenyl or benzyl, either of which is optionally substituted by halo, C<sub>1-4</sub> alkyl, C<sub>1-4</sub> alkoxy, S(O)<sub>2</sub>(C<sub>1-4</sub> alkyl), nitro, cyano or CF<sub>3</sub>; wherein z is 0, 1 or 2.

8. (Currently Amended) A compound as claimed in ~~any one of the preceding claims~~ claim 1, wherein R<sup>5</sup> is hydrogen.

9. (Currently Amended) A compound as claimed in ~~any one of the preceding claims~~ claim 1, wherein X is CH<sub>2</sub> or CH=CH.

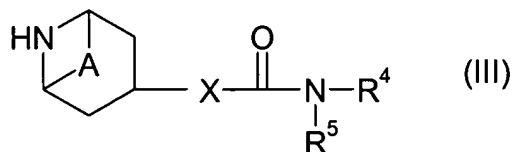
10. (Currently Amended) A process for preparing a compound of formula (I) as claimed in claim 1 ~~can be prepared by comprising:~~

a. for a compound of the invention wherein R<sup>1</sup> is an N-linked optionally substituted heterocycle, reacting a compound of formula (II):

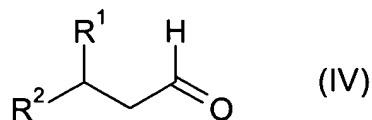


wherein R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, A and X are as defined in claim 1, with a compound R<sup>1</sup>H (wherein the H is on a heterocycle ring nitrogen atom) wherein R<sup>1</sup> is as defined in claim 1, in the presence of a suitable base, in a suitable solvent;

b. for a compound of the invention wherein R<sup>3</sup> is hydrogen, coupling a compound of formula (III):

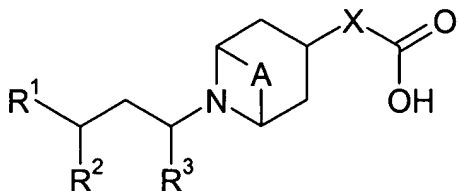


wherein R<sup>4</sup>, R<sup>5</sup>, A and X are as defined in claim 1, with a compound of formula (IV):



wherein R<sup>1</sup> and R<sup>2</sup> are as defined in claim 1, in the presence of NaBH(OAc)<sub>3</sub> (wherein Ac is C(O)CH<sub>3</sub>) in a suitable solvent at room temperature;

c. activating the acid group of a compound of formula (V)



wherein X, A, R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are as defined in claim 1, and coupling the product so formed with an amine R<sup>4</sup>R<sup>5</sup>NH (wherein R<sup>4</sup> and R<sup>5</sup> are as defined in claim 1).

11. (Original) A pharmaceutical composition which comprises a compound as claimed in claim 1, or a pharmaceutically acceptable salt thereof or solvate thereof, and a pharmaceutically acceptable adjuvant, diluent or carrier.

12. (Cancelled)

13. (Cancelled)

14. (Original) A method of treating a CCR5 mediated disease state comprising administering to a patient in need of such treatment an effective amount of a compound as claimed in claim 1, or a pharmaceutically acceptable salt thereof or solvate thereof.

15. (New) A compound as claimed in claim 2, wherein R<sup>1</sup> is piperidinyl or piperazinyl substituted by S(O)<sub>2</sub>C<sub>1-4</sub> alkyl, S(O)<sub>2</sub>C<sub>1-4</sub> haloalkyl or C(O)NH-phenyl.

16. (New) A compound as claimed in claim 2, wherein R<sup>1</sup> is phenyl substituted by S(O)<sub>2</sub>C<sub>1-4</sub> alkyl.

17. (New) A compound as claimed in claim 2, wherein R<sup>2</sup> is phenyl optionally substituted by 0, 1 or 2 fluorines.

18. (New) A compound as claimed in claim 2, wherein  $R^3$  is hydrogen.

19. (New) A compound as claimed in claim 2, wherein  $R^4$  is phenyl or benzyl, either of which is optionally substituted by halo,  $C_{1-4}$  alkyl,  $C_{1-4}$  alkoxy,  $S(O)_z(C_{1-4}$  alkyl), nitro, cyano or  $CF_3$ ; wherein  $z$  is 0, 1 or 2.

20. (New) A compound as claimed in claim 2, wherein  $R^5$  is hydrogen.

21. (New) A compound as claimed in claim 2, wherein  $X$  is  $CH_2$  or  $CH=CH$ .